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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/284,683	06/24/1999	GREGOR CEVC	500.1007	2670

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EXAMINER	
KISHORE, GOLLAMUDI S	
ART UNIT	**PAPER NUMBER**
1615	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/284,683	CEVC, GREGOR	
	Examiner	Art Unit	
	Gollamudi S. Kishore, Ph.D	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-33 and 49-92* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-33-49-92* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The amendment dated 12-21-04 and the change of address dated 12-23-04 are acknowledged.

Claims included in the prosecution are 22-33 and 49-92.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 53-91 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,165,500. Although the conflicting claims are not identical, they are not patentably distinct from each other because for the following reasons. Instant claims are drawn to treatment of a mammal by administering the same transfersomes to the skin or mucous membrane of the mammal. Since the transfersomes have to be transported through the skin as claimed in patented claims, instant claims encompass the patented claims.

Instant claim 53 is generic with respect to the amount of the lipid and the lipid: surfactant ratios in patented claims.

Applicants' arguments have been fully considered, but are not found to be persuasive. Applicants argue that they found that it is possible to provide preparations with vesicles that will not solubilize in the suspension regardless of how much of the first and second component and the active agent are added and US 500 does not teach these. These arguments are not found to be persuasive since instant method is a method of treatment claim using a composition of transfersomes and not a method of preparation claim. As pointed out before, the lower limit of the second component in 500 is 0.1 % and therefore, it would be obvious to one of ordinary skill in the art to vary the amounts of the components and make a preparation, which is useful for the treatment of a specific disease.

3. Claims 22-33 and 49-92 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 69-87 and 101-103 of copending Application No. 10/357,618. Although the conflicting claims are not identical, they are not patentably distinct from each other because instant claims 22-33 and 92 and the claims 69-79 are drawn to a method of preparation of same transfersomes; instant claim language does not exclude the presence of the third substance in the method of preparation and the generic claim 69 in said copending application encompasses instant molar amounts. Instant claims 49-91 are drawn to a method of treatment using the transfersomes and thus encompasses 'a method for generating a therapeutic effect on a warm blood creature applying transfersomes; as

stated above, instant claim language does not exclude the presence of the third substance in the composition used in the method of generating a therapeutic effect in the claims of said copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants' arguments have been fully considered, but are not found to be persuasive. As pointed out above, both are drawn to the same method of preparation of transfersomes and the only difference is that the claims in said copending application do not recite the limitation of "adjusting the content of the second substance to less than 0.1 %. Since the method in the copending application results in the formation of the transfersomes, it would be obvious to one of ordinary skill in the art that the concentration of the second substance is already adjusted (otherwise the transfersomes do not form). Applicants' arguments therefore, are not persuasive.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 22-33 and 49-92 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 475 160 of record (English equivalent, US 6165,500).

EP discloses instant composition (transfersomes) containing a drug, amphiphilic lipids (such as PC and PG) and a surfactant (oleic acid) in instant amounts and a method of preparation (see the entire document and the English equivalent). The Examples 32-39 show the amounts of the lipids and surfactant, which appear to fall within the claimed limits. Although the reference does not explicitly recite the claimed steps such as selecting the lipids, adopting the composition by adjusting the amounts of the soluble component and adjusting the concentration of the lipid, since one cannot come up with specific amounts of the components as seen in example 32-39 of the reference without experimentation, the claimed steps are deemed to be implicit.

Applicant's arguments have been fully considered, but are found to be persuasive. Applicant argues that they found that it is possible to provide a preparation with vesicles that will not solubilize in the suspension regardless of how much the first and second amphiphilic component and the active substance are added. These arguments are confusing and contradictory to their previous arguments. First of all, since prior art teaches the same components and same deformable transfersomes; secondly, if the vesicles do not solubilize in the suspension regardless of their amounts in instant invention, then what is the point in adjusting the substance (more soluble component) content to less than 0.1 % and argue that "with US 500, if too much of a particular component is present in the preparation, the droplets will solubilize, thus, rendering the preparation ineffective". Thirdly, in the previous response, applicants

argued that if too much of the second component is added, then the droplets will solubilize and this concentration must not be reached. This previous argument is contradictory to the argument applicants are making now. Finally, the differences between the prior art and instant invention, applicants try to argue are not reflected in the claims, which do not even recite specific components.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 22-33 and 49-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 475 160 cited above (English equivalent, US 6,165,500).

As pointed out above, EP teaches the same deformable transfersomes composition containing a drug, combination of amphiphilic lipids and a surfactant in

instant amounts and a method of preparation. It is unclear whether the reference teaches all the instant functional parameters and mole percentages (since they are given in terms of weight). In case they are different, in the absence of showing the criticality, they are deemed to be parameters manipulatable by an artisan to obtain the best possible results.

Applicant's arguments have been fully considered, but are not found to be persuasive. Applicants once again argue that they found that it is possible to provide preparations with vesicles that will not solubilize in the suspensions regardless of how much of the first and second amphiphilic component and active agent are added. These have been addressed above. As pointed out before, the lower limit of the more soluble component in EP (US 6,165,500) is 0.1 mole percent and based on the discussions of the required elasticity of the transfersomes and the criteria of the lipid- surfactant ratios and the solubilization concentrations on column 2, line 56 through col. 3, line 4 and col. 4, lines 15-56, one of ordinary skill in the art would manipulate the basic teachings of the prior art with the expectation of obtain the best possible transfersomes.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gollamudi S. Kishore, Ph.D whose telephone number is (571) 272-0598. The examiner can normally be reached on 6:30 AM- 4 PM, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gollamudi S Kishore, Ph.D
Primary Examiner
Art Unit 1615

GSK